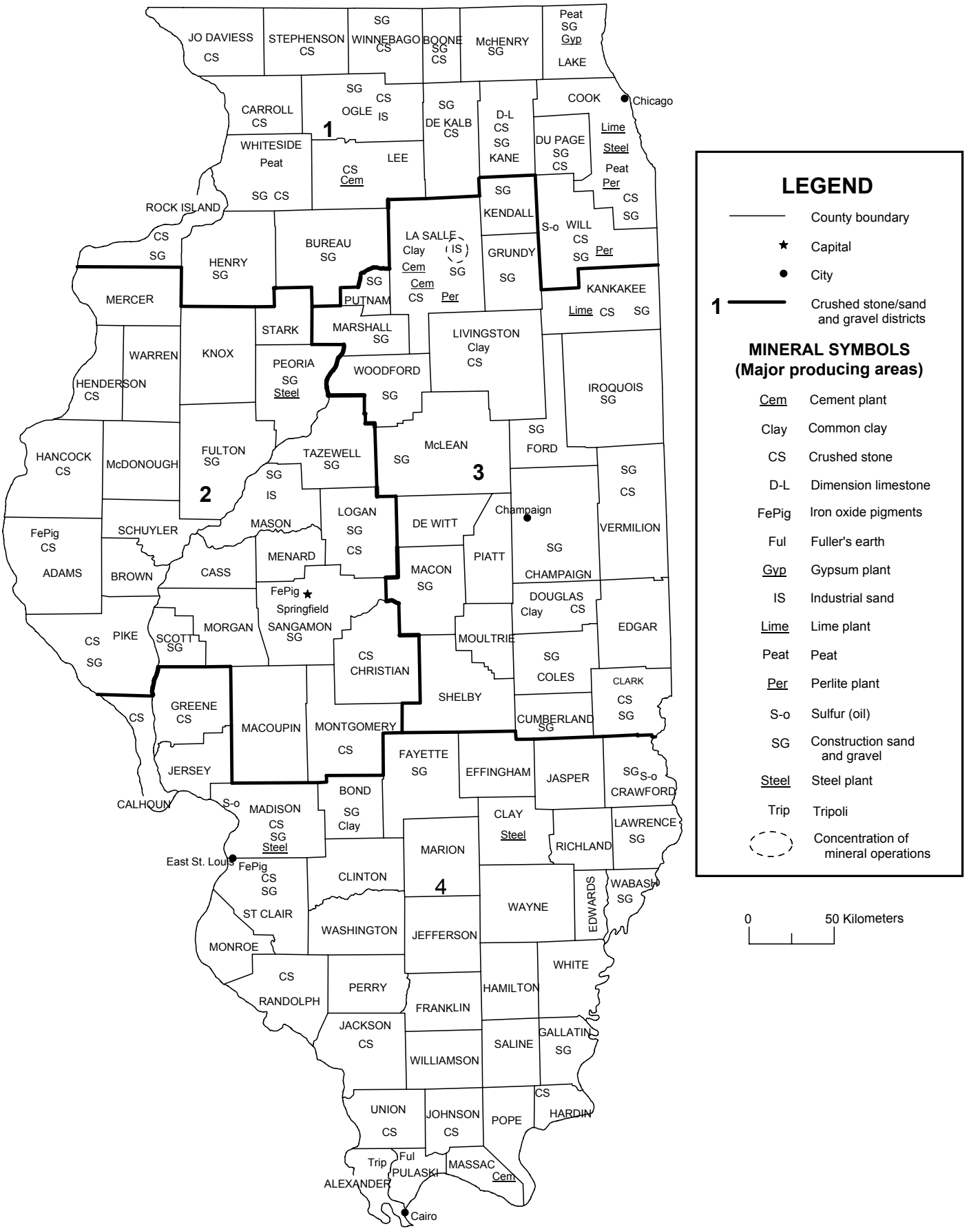
ILLINOIS



Source: Illinois State Geological Survey/U.S. Geological Survey (2002)

THE MINERAL INDUSTRY OF ILLINOIS

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Illinois State Geological Survey for collecting information on all nonfuel minerals.

In 2002, the estimated value[1] of nonfuel mineral production for Illinois was $950 million, based upon preliminary U.S. Geological Survey (USGS) data. This was about a 4% decrease from that of 2001[2] and followed an 8.8% increase from 2000 to 2001. The State was 17th in rank (15th in 2001) among the 50 States in total nonfuel raw mineral production value, of which the State accounted for about 2.5% of the U.S. total.

All of Illinois' total nonfuel mineral production value in 2002 resulted from the production of industrial minerals; metals have not been produced from mines in the State since 1996 when small quantities of copper, lead, silver, and zinc were produced. In 2002, crushed stone, by value, remained the State's leading nonfuel mineral commodity, accounting for about 48% of the total nonfuel mineral value, followed by portland cement with almost 21%, construction sand and gravel with about 15%, industrial sand and gravel with about 8%, lime, fuller's earth, and tripoli (descending order of value).

In 2001, increases in the production and values of crushed stone, up $65 million, and construction sand and gravel, up $24 million, led the State's increase, further supported by smaller increases in the values of common clays, crushed sandstone, industrial sand and gravel, and peat. The largest decreases for the year were those of lime, down about $5 million, and portland cement, down $4 million (table 1).

Compared with USGS estimates of the quantities of minerals produced in the other 49 States in 2002, Illinois remained first in industrial sand and gravel, first among 4 States that produce tripoli, fifth in crushed stone, and eighth in lime. While the State rose to 2d from 4th in fuller's earth and to 4th from 5th in peat, it remained tied for 10th in portland cement and continued to be a significant construction sand-and-gravel-producing State. Raw steel was produced in the State, but it was processed from materials obtained from other domestic and foreign sources. Illinois rose to fourth in the Nation from fifth during 2001 in the manufacture of raw steel with an output of nearly 6 million metric tons, according to the American Iron and Steel Institute (American Iron and Steel Institute, 2002, p. 76).

The following narrative information was provided by the Illinois State Geological Survey[3] (ISGS).

Exploration and Development Activities

Increased demand for aggregate sparked investigation for new mining areas. In northeastern Illinois, the aggregate industry continued to explore the feasibility for underground mining of the Ordovician Galena and Platteville Groups. Northeastern Illinois was one of the largest aggregate-producing and aggregate-consuming regions in the country and will likely remain so long into the future. In 2002, northern Illinois provided more than 50% of the State's crushed stone and sand and gravel production. As rampant development in the suburban Chicago area continued to build over prime stone and sand and gravel resources, opposition to opening new pits and quarries increased. Opposition to mining was no longer limited to populated areas and expanded in many rural areas, especially in central Illinois, where there are important resources in the Illinois River Valley.

The combination of depleting near-surface reserves and difficulty in obtaining zoning and other permits for new, geologically suitable quarry sites continued to affect the crushed stone industry. In September 2002, the Ogle County Board voted against opening a new quarry near Monroe Center. Closer to Chicago, two companies proposed opening underground mines to produce crushed stone from the Ordovician Galena Group dolomites. Bluff City Materials Inc. proposed to develop a new mine at the site of an abandoned gravel pit in Bartlett, Cook County. In Will County, Port Authority of Will County LLC requested zoning changes and permission for underground blasting for a site in Joliet Township that was previously a chemical plant. In Will and Kane Counties, companies continued development or were planning for underground mines at sites of depleted surface quarries. Underground mining also was considered in southern and southwestern Illinois. Feasibility of underground mining also was investigated along the bluffs of the

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[1]The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the minerals or mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 2002 USGS mineral production data published in this chapter are preliminary estimates as of July 2003 and are expected to change. For some mineral commodities, such as construction sand and gravel, crushed stone, and portland cement, estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Specialist contact information may be retrieved over the Internet at URL http://minerals.usgs.gov/minerals/contacts/comdir.html; alternatively, specialists' names and telephone numbers may be obtained by calling USGS information at (703) 648-4000 or by calling the USGS Earth Science Information Center at 1-888-ASK-USGS (275-8747). All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved over the Internet at URL http://minerals.usgs.gov/minerals.

[2]Values, percentage calculations, and rankings for 2001 may differ from the Minerals Yearbook, Area Reports: Domestic 2001, Volume II, owing to the revision of preliminary 2001 to final 2001 data. Data for 2002 are preliminary and are expected to change; related rankings may also change.

[3]Zak Lasemi, Geologist and Head of the Industrial Minerals Section (IMS) of the Illinois State Geological Survey, and Timothy J. Kemmis and Donald G. Mikulic, Geologists in the IMS, authored the text of the State mineral industry information provided by that State agency.

Mississippi River in Madison County.

Other developments included opening or reactivating two new limestone quarries in southern Illinois. The Casey Stone Co. opened a new operation in the Pennsylvanian age limestone near Casey, Clark County, and Downen Aggregate Group, LLC reactivated an abandoned quarry in Hardin County. In Randolph County, Martin Marietta Aggregate began working the limestone reserve in a previously inactive underground mine owned by the Mississippi Lime Co. In Madison County, Kim Material Sand & Gravel of St. Charles, MO, purchased the Lohr quarry near Godfrey.

In southwestern Illinois, detailed descriptions of cores, a cross section, and a general assessment of the limestone resources for several quarries helped operators plan future development and provided essential data for the ISGS's regional assessment of mineral resources of the East Saint Louis metropolitan region. Large deposits of high-quality limestone and dolomite were known, but their full areal extent, quality, and thickness were uncertain. Rapid urban/suburban development in the area may prevent extraction of valuable resources or require use of more costly underground mining technology.

Commodity Review

Illinois nonfuel mineral industries had another strong year in 2002. Demand remained high, led by crushed stone and sand and gravel aggregate that combined to account for about 60% of Illinois' nonfuel industrial minerals value. For crushed stone, limestone accounted for about 77% of the total, and dolomite accounted for the remaining 23%. Industry trends also indicated several new challenges. The aggregate industry continued to face growing opposition to new pit and quarry development despite the intense need caused by rapid urban development of the metropolitan Chicago area. Furthermore, uncertainty about renewal of Federal and State funding for projects to maintain and rebuild infrastructure has led to concerns about whether the current high demand for aggregate will continue. In partial response to the opposition to new pit and quarry development, several companies evaluated developing underground mines. Quarry reclamation continued in the State, and the variety of end uses provided significant new benefits to communities.

In 2002, active research was conducted to open new markets or expand existing markets for several products. These included producing bricks and concrete blocks by blending fly ash with high-quality shales and clays. Also, studies were done on locating fireclay and shale resources near coal-fired powerplants for fly ash brick manufacture and locating high-quality limestone resources for use in coal-fired powerplant desulfurization scrubbers. New uses for limestone and dolomite fines, the byproducts of rock and stone crushing, were also studied. Finally, research was conducted on developing coal-limestone-biosolid fuel pellets.

In 2002, sharply increased demand for high-quality aggregate resulted from increased construction for the State's Fund for Infrastructure, Roads, Schools, and Transit (FIRST) program as well as for high-purity limestone needed for the Illinois Coal Revival Initiative. The Illinois FIRST program, which was intended to renew the State's aging infrastructure and deal with needs of urban expansion of the Chicago and St. Louis metropolitan areas, provided substantial funding for the repairs and construction. The Illinois Department of Transportation (IDOT) highway program, which included $2.3 billion in Federal, State, and local matching funds, created 55,000 jobs and improved 2,500 kilometers of roads and 333 bridges in 2002. IDOT reported that funds from the Illinois FIRST program helped halve the backlog in the number of roads needing repair from 3,050 in 1983 to a historic low of 1,462 in 2002. The Illinois FIRST program will end in fiscal year (FY) 2004, and the Federal Transportation Equity Act for the 21st Century (TEA-21), which provided funds for transportation, was also expiring. These lapses could significantly reduce State and Federal funding for road improvement and repair unless measures are taken to secure additional funds. IDOT predicted that to be able to continue with maintenance and development of roads for economic development at a rate comparable with the Illinois FIRST Program, combined State and Federal funding in the range of $12.1 billion to $20.3 billion would be needed during FY 2004-2009. The outlook for increased funding for road improvement was not promising. It was expected that State funding for Illinois highways would decrease from $2.3 billion in FY 2003 to $1.7 billion in FY 2004 and to $1.3 billion in FY 2005.

Despite the increased aggregate demand, since 2000, there has been only a modest increase in crushed stone production in Illinois, and sand and gravel production has stayed about the same or declined slightly because the industry could not increase production to meet the needs spurred by the Illinois FIRST Program. Industry representatives attributed the additional supply to operators in adjacent States already on IDOT's approved suppliers list. However, this meant that aggregate was brought into the State from distant locations at a higher cost.

Both industry and government agencies continued to inquire about suitable sources of high-quality limestone for scrubber systems for potential mine-mouth, coal-fired powerplants in Illinois that may be built with assistance from State tax incentives. Both limestone and dolomite were used in desulfurization scrubbers, and the companies needed an adequate nearby supply of stone. The ISGS applied for funding from the State's Department of Commerce and Economic Opportunity (DCEO) to support the mapping and characterizing of suitable carbonate rock resources near coal-fired powerplants throughout the State.

Environmental Issues and Mine Reclamation

Mineral producers continued to address environmental issues and continued to actively reclaim their properties to allow new beneficial uses once mining is completed. Vulcan Materials Co.'s Casey Quarry won the national 2002 Non-Coal Reclamation Award

of the National Association of State Land Reclamationists. Reclamation of the Casey site included particular attention to the natural site contours and their relationship to the surrounding landscape, the thickness of the limestone being quarried [the 6-meter (m)-thick Pennsylvanian age Livingston Limestone], the plentiful overburden materials available, and the location of the property near a stream area that could serve as a wildlife corridor between habitats. Reclamation successfully restored the previously mined areas into habitats native to the region, which would have been otherwise depleted of natural habitat by intensive agriculture and town growth; the reclaimed site is an asset for the whole community.

A former underground limestone mine in the Village of Valmeyer in Monroe County, south of St. Louis, was converted into a business complex with nearly $3.5 million in grants from State and Federal sources. The Rock City Business Complex being developed at the former Columbia Quarry site includes more than 460 square meters of underground space in the limestone mine. Similar development of underground mine sites at Quincy, IL, and Kansas City, MO, have been successful. For the Rock City Complex, the Illinois Department of Commerce and Economic Opportunity provided two grants, totaling $920,000, to be used for infrastructure improvements. DCEO will partner with the U.S. Department of Commerce's Economic Development Administration (EDA) in this project. EDA previously awarded $1.9 million toward the project. The Illinois Department of Transportation will also provide $384,000 in Economic Development Program funds through the Illinois FIRST program for roadway construction within the complex. As a result of these grants, Cold Storage, Inc. agreed to enter into a lease to create a 9,380-square-meter, temperature-controlled warehouse facility within the mine. It is hoped that this could lead to a wide range of additional commercial activities including industrial, retail, and office space.

The Alby quarry in Alton, Madison County, ran out of space to extend its operation and applied for the conversion of the quarry into a nonhazardous landfill. The 60- to 110-m-deep quarry will undergo engineering and environmental assessment studies before final approval. The volume to be filled is estimated to be 6.7 million cubic meters, and, when filled, the area would become green space.

In Kane County, Bluff City Materials, Inc. planned for underground limestone mining beneath Bluff Springs Fen nature preserves in Bartlett, Cook County. ISGS provided geologic information and economic feasibility assessments to the Illinois Department of Natural Resources (IDNR) regarding Bluff City Materials' plans. Geologists from the ISGS, Illinois State Water Survey staff, IDNR officials, and representatives from the mining company met several times to discuss the protection of Bluff Springs Fen and mining feasibility. Because of the short timetable for approving the mine entry location, Bluff City Materials committed to several actions to protect the Fen, although scientific studies were not yet complete. In the agreement between the Illinois Nature Preserves Commission and Bluff City Materials, the company has agreed to implement a hydrogeologic study of the Fen vicinity and adjoining mine property to develop a ground water model to estimate impacts of proposed mining and other land-use changes and to complete long-term monitoring of hydrogeologic conditions of the Fen.

Legislation and Government Programs

Legislation signed by then Governor George Ryan in 2002 benefited the aggregate industry. One bill extended the aggregate industry's tax exemption to December 31, 2007. Public Act 92-603 exempts from sale-and-use taxation the purchase of machinery and equipment used primarily for aggregate exploration, mining, off-highway hauling, processing, maintenance, and reclamation as well as replacement parts for such equipment (and such equipment purchased for lease). The Illinois Association of Aggregate Producers (IAAP) and allied trade associations also worked to block a bill that would have allowed Illinois townships to wield veto authority over new conditional and special-use permits. IAAP representatives also made several lobbying trips to Washington, DC, to highlight the industry's concerns about adequate Federal highway funding with key members of Congress.

The Chicago Roofing Contractor's Association requested information from ISGS on potential sources of high-reflectivity aggregate to meet Chicago's proposed reflectivity specifications for built-up roofs. High-reflectivity roofs save energy. In 2002, the industry used local aggregate and constructed roofs, according to the American Society for Testing and Materials (ASTM's) Standard Specification for Mineral Aggregate Used on Built-Up Roofs, which does not include specifications for aggregate reflectivity. The lack of local sources of high-reflectivity aggregates, particularly in the required coarse particle sizes, makes compliance difficult and expensive. Potential sources suggested by ISGS include quartz-rich gravels in the Mississippi River Valley across from Muscatine, IA, and quartz-rich gravel in the basal Pennsylvanian rocks of southern Illinois, although these latter rocks are not presently mined. All other high-reflectivity aggregate sources lie outside Illinois and have high transportation costs. Continued consultations are anticipated as the Association and city officials continued discussions about the proposed reflectivity specifications.

In the Peoria area, ISGS industrial minerals geologists investigated the economic potential of materials in Lake Peoria stream-mouth deltas. Based on the results of their report (A Reconnaissance Study and Sample Analysis to Evaluate Potential of Mining Stream-Mouth Deltas in Lake Peoria) to the Illinois Waste Management and Research Center, the deltas, which in some areas have virtually filled all but the barge channel in the Illinois River, are composed of gravels, sands, silts, and clays transported into the valley by tributaries. The deltaic materials differ distinctly from the silts and clays deposited by the main river. A wide range of potential uses were considered, but the study indicated that the delta materials would only meet the specifications for relatively low-cost fill, such as wastesite berms and covers, flowable fill, utility markers, and decorative sands and gravels. Mining of the gravel deposits underlying

some of the stream-mouth deltas could provide significant income and create deep pools useful for certain aquatic wildlife, but mining and processing of the materials would also present major problems.

Innovative new ways to use mining byproducts, such as fly ash and limestone and dolomite fines, were developed that promise to make use of what is otherwise considered waste. Companies that mine and burn coal increasingly are looking for ways to use their byproducts. Chief among these is the potential to use Class F fly ash as a significant component in bricks and other construction materials. ISGS, in cooperation with the Department of Natural Resources and Environmental Sciences of the University of Illinois and the Illinois Clean Coal Institute has demonstrated that Class F fly ash from combustion of Illinois coal can substitute for as much as 40% by weight of the clay and shale in bricks. Because this application could consume substantial amounts of Illinois' clays in addition to using up to 360,000 metric tons of fly ash each year, ISGS has begun a project to locate and characterize the properties of fireclay and shale deposits near several coal-fired electric generation plants.

A new exhibit near the Chicago Museum of Science Industry's famous underground coal mine featured structures built with bricks and autoclaved, aerated concrete blocks made with fly ash from Illinois powerplants. (Autoclaved, aerated concrete block is a lightweight building material used extensively in Europe.) The Museum's exhibit designers contacted ISGS about ways to show thousands of visitors each year how the Illinois Clean Coal Institute and the ISGS assist the coal mining industry in Illinois. The ISGS continued to help brick manufacturers adopt fly ash as a substitute for some of the natural raw materials in their bricks.

Producers investigated new uses for limestone and dolomite fines, including agricultural soil amendments, manufactured sand, ceramics, liquid and gaseous scrubbers, and neutralizing agents for acid-waste streams. ISGS received a 1-year contract from the Illinois Clean Energy Foundation to demonstrate the use of pellets made from biosolids, coal, and limestone to fire a boiler. The biosolids are byproducts of waste-treatment plants that are usually discarded in landfills. The biosolids-coal-limestone fuel pellets are expected to be less expensive to burn than coal alone because a scrubber is unnecessary, and diluting the coal with combustible modern wastes reduces the amount of fossil-based carbon dioxide added to the atmosphere.

Reference Cited

American Iron and Steel Institute, 2002, Washington, DC, Annual statistical report 2002: American Iron and Steel Institute, 130 p.

TABLE 1

NONFUEL RAW MINERAL PRODUCTION IN ILLINOIS[1, 2]

(Thousand metric tons and thousand dollars)

Mineral	2000		2001		2002[p]	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement, portland	2,860	218,000 [e]	2,870	214,000 [e]	2,640	197,000
Clays:						
Common	200	905	198	972	196	957
Fuller's earth	W	W	367	34,200	W	W
Gemstones	NA	8	NA	8	NA	8
Sand and gravel:						
Construction	30,300	132,000	35,000	156,000	31,500	143,000
Industrial	4,430	71,600	4,460	72,100	4,500	75,700
Stone, crushed[3]	76,000	394,000	80,700	459,000	79,100	459,000
Combined values of lime, peat, stone [crushed sandstone (2000-2001)], tripoli, and values indicated by symbol W	XX	96,200	XX	57,400	XX	74,800
Total	XX	913,000	XX	993,000	XX	950,000

[e]Estimated. [p]Preliminary. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

[1]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

[2]Data are rounded to three significant digits; may not add to totals shown.

[3]Excludes certain stones; value included with "Combined values" data.

TABLE 2

ILLINOIS: CRUSHED STONE SOLD OR USED, BY KIND[1]

Kind	2000				2001			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone[2]	117 r	58,600	$307,000	$5.23	116	61,500	$347,000	$5.65
Dolomite	17	17,400	87,600	5.05	20	18,700	107,000	5.72
Sandstone	1	W	W	W	1	W	W	W
Miscellaneous stone	--	--	--	--	(3)	(4)	(4)	9.00
Total	XX	76,000	394,000	5.19	XX	80,700	459,000	5.69

[r]Revised. W Withheld to avoid disclosing company proprietary data. XX Not applicable. -- Zero.

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

[2]Includes limestone-dolomite reported with no distinction between the two.

[3]Sales yard.

[4]Withheld to avoid disclosing company proprietary data; included in "Total."

TABLE 3

ILLINOIS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2001, BY USE[1, 2]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1 1/2 inch):			
Macadam	1,270	$8,380	$6.58
Riprap and jetty stone	418	4,240	10.15
Filter stone	471	2,740	5.82
Other coarse aggregates	525	2,560	4.87
Total or average	2,690	17,900	6.67
Coarse aggregate, graded:			
Concrete aggregate, coarse	7,220	48,800	6.77
Bituminous aggregate, coarse	5,370	41,700	7.76
Bituminous surface-treatment aggregate	1,250	8,940	7.17
Railroad ballast	343	1,970	5.73
Other graded coarse aggregates	1,090	4,680	4.30
Total or average	15,300	106,000	6.95
Fine aggregate (-3/8 inch):			
Stone sand, concrete	W	W	5.15
Stone sand, bituminous mix or seal	375	2,220	5.91
Screening, undesignated	1,070	4,130	3.87
Other fine aggregates	1,550	7,510	4.83
Total or average	3,000	13,900	4.62
Coarse and fine aggregates:			
Graded road base or subbase	12,300	62,900	5.11
Unpaved road surfacing	2,760	15,400	5.58
Crusher run or fill or waste	254	1,220	4.80
Roofing granules	W	W	21.12
Other coarse and fine aggregates	1,300	5,710	4.40
Total or average	16,600	85,200	5.13
Other construction materials	1,230	7,560	6.15
Agricultural:			
Limestone	1,800	8,100	4.50
Poultry grit and mineral food	(3)	(3)	16.49
Other agricultural uses	128	476	3.72
Chemical and metallurgical, cement manufacture	2,380	18,600	7.80
Special:			
Mine dusting or acid water treatment	(3)	(3)	13.93
Asphalt fillers or extenders	(3)	(3)	15.37
Other miscellaneous uses and specified uses not listed	(3)	(3)	6.51
Unspecified:[4]			
Reported	25,200	141,000	5.62
Estimated	12,000	58,000	4.77
Total or average	37,400	200,000	5.34
Grand total or average	80,700	459,000	5.69

W Withheld to avoid disclosing company proprietary data; included in "Other."

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

[2]Excludes sandstone to avoid disclosing company proprietary data.

[3]Withheld to avoid disclosing company proprietary data, included in "Grand total."

[4]Reported and estimated production without a breakdown by end use.

TABLE 4

ILLINOIS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2001, BY USE AND DISTRICT[1, 2]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1 1/2 inch)[3]	1,870	12,100	77	834	323	2,520
Coarse aggregate, graded[4]	9,190	68,300	50	370	3,000	20,900
Fine aggregate (-3/8 inch)[5]	1,930	8,640	50	408	573	2,720
Coarse and fine aggregates[6]	10,600	54,800	456	3,120	3,050	16,300
Other construction materials	1,230	7,560	--	--	--	--
Agricultural[7]	525	2,040	108	574	492	2,800
Chemical and metallurgical[8]	676	4,100	--	--	1,710	14,500
Special[9]	--	--	--	--	38	567
Other miscellaneous uses and specified uses not listed	--	--	--	--	--	--
Unspecified:[10]						
Reported	14,400	84,000	2,460	14,100	1,460	8,100
Estimated	3,300	16,000	2,700	13,000	2,700	13,000
Total	43,800	257,000	5,870	32,700	13,300	81,700

Use	District 4	
	Quantity	Value
Construction:		
Coarse aggregate (+1 1/2 inch)[3]	412	2,500
Coarse aggregate, graded[4]	3,030	16,500
Fine aggregate (-3/8 inch)[5]	445	2,080
Coarse and fine aggregates[6]	2,520	11,100
Other construction materials	--	--
Agricultural[7]	816	3,430
Chemical and metallurgical[8]	--	--
Special[9]	--	--
Other miscellaneous uses and specified uses not listed	55	358
Unspecified:[10]		
Reported	6,810	35,200
Estimated	3,600	16,000
Total	17,700	87,300

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Excludes sandstone to avoid disclosing company proprietary data.

[3]Includes filter stone, macadam, riprap and jetty stone, and other coarse aggregates.

[4]Includes bituminous aggregate (coarse), bituminous surface-treatment aggregate, concrete aggregate (coarse), railroad ballast, and other graded aggregates.

[5]Includes stone sand (bituminous mix or seal), stone sand (concrete), screening (undesignated), and other fine aggregates.

[6]Includes crusher run (select material or fill), graded road base or subbase, roofing granules, unpaved road surfacing, and other coarse and fine aggregates.

[7]Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

[8]Includes cement manufacture.

[9]Includes asphalt fillers or extenders and mine dusting or acid water treatment.

[10]Reported and estimated production without a breakdown by end use.

TABLE 5

ILLINOIS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2001, BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregates (including concrete sand)	6,130	$27,600	$4.50
Plaster and gunite sands	379	1,970	5.20
Concrete products (blocks, bricks, pipe, decorative, etc.)	386	1,850	4.79
Asphalt concrete aggregates and other bituminous mixtures	1,570	7,180	4.59
Road base and coverings	4,290	22,400	5.21
Road stabilization (cement)	143	509	3.56
Road stabilization (lime)	145	579	3.99
Fill	2,000	7,880	3.93
Snow and ice control	209	1,070	5.10
Other miscellaneous uses[2]	181	1,270	7.00
Unspecified:[3]			
Reported	11,400	48,500	4.25
Estimated	8,100	35,000	4.28
Total or average	35,000	156,000	4.45

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

[2]Includes filtration and roofing granules.

[3]Reported and estimated production without a breakdown by end use.

TABLE 6

ILLINOIS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2001, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregates and concrete products[2]	2,310	10,600	1,150	5,080	2,670	13,200
Asphaltic concrete aggregates and other bituminous mixtures	858	3,040	W	W	596	3,620
Road base and coverings[3]	2,510	12,400	812	3,680	1,070	6,600
Fill	754	2,940	334	1,130	732	3,220
Snow and ice control	203	1,040	--	--	5	22
Other miscellaneous uses[4]	137	973	81	496	--	--
Unspecified:[5]						
Reported	9,580	42,000	605	2,410	1,240	4,190
Estimated	3,300	14,000	840	3,600	2,000	8,300
Total	19,600	87,200	3,810	16,400	8,350	39,100

	District 4		Unspecified districts	
	Quantity	Value	Quantity	Value
Concrete aggregates and concrete products[2]	437	1,680	330	885
Asphaltic concrete aggregates and other bituminous mixtures	W	W	--	--
Road base and coverings[3]	188	789	--	--
Fill	185	598	--	--
Snow and ice control	(6)	(6)	--	--
Other miscellaneous uses[4]	73	318	--	--
Unspecified:[5]				
Reported	--	--	--	--
Estimated	2,000	8,600	--	--
Total	2,900	12,000	330	885

W Withheld to avoid disclosing company proprietary data; included in "Other miscellaneous uses." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes plaster and gunite sands.

[3]Includes road and other stabilization (cement and lime).

[4]Includes filtration and roofing granules.

[5]Reported and estimated production without a breakdown by end use.

[6]Less than 1/2 unit.